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(71) Applicant (for all designated States except US): **SYNGENTA PARTICIPATIONS AG** [CH/CH]; Schwarzwaldallee 215, CH-4058 Basel (CH).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **LANAHAN, Michael, B.** [US/US]; 3054 Cornwallis Road, Research Triangle Park, NC 27709 (US). **BASU, Shib, S.** [IN/US]; 1090 Vauxhill Drive, Apex, NC 27502 (US). **BATIE, Christopher, J.** [US/US]; 303 Monmouth Avenue, Durham, NC 27701 (US). **CHEN, Wen** [CN/US]; 102 Equestrian Court, Cary, NC 27513 (US). **CRAIG, Joyce** [US/US]; 127 Andrews Store Road, Pittsboro, NC 27312 (US). **KINKEMA, Mark** [US/US]; 3609 Knollwood Drive, Durham, NC 27712 (US).

(74) Agents: **MORTON, Marcia, R.** et al.; Syngenta Biotechnology, Inc., 3054 Cornwallis Road, Research Triangle Park, NC 27709 (US).

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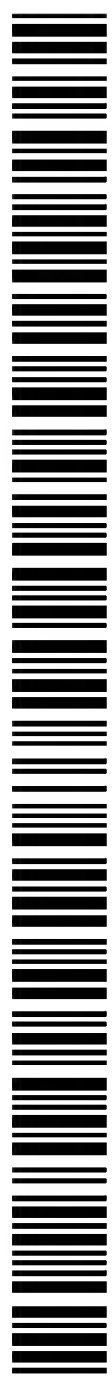
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(54) Title: SELF-PROCESSING PLANTS AND PLANT PARTS

(57) Abstract: The invention provides polynucleotides, preferably synthetic polynucleotides, which encode processing enzymes that are optimized for expression in plants. The polynucleotides encode mesophilic, thermophilic, or hyperthermophilic processing enzymes, which are activated under suitable activating conditions to act upon the desired substrate. Also provided are "self-processing" transgenic plants, and plant parts, e.g., grain, which express one or more of these enzymes and have an altered composition that facilitates plant and grain processing. Methods for making and using these plants, e.g., to produce food products having improved taste and to produce fermentable substrates for the production of ethanol and fermented beverages are also provided.



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